

IN THE CLAIMS:

Claims 1-10 (cancel without prejudice).

Claim 11 (new): Use of a combination of recombinant domains derived from any one of the alpha, beta, gamma, delta and epsilon subunits of the primate muscle nicotinic acetylcholine receptor (AChR) in a method of immunoadsorption.

Claim 12 (new): The use of claim 11 comprising a recombinant domain of the alpha subunit of the primate muscle nicotinic AChR in combination with a recombinant domain derived from any one of the beta, gamma, delta and epsilon subunits of the primate muscle nicotinic AChR.

Claim 13 (new): The use of claim 11 wherein the method is for immunoadsorption of anti-AChR antibodies.

Claim 14 (new): The use of claim 11 wherein the primate is human.

Claim 15 (new): The use of claim 11 wherein the recombinant domains are mutant forms of said domains.

Claim 16 (new): The use of claim 15 wherein the mutant forms include substitutions of free cysteine by other amino acids and substitutions of the hydrophobic loops of the subunits corresponding to alpha 128-142 by more

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hydrophilic sequences, or the alpha domain containing the P3A exon, or comprise a FLAG tag at the N-terminal.

Claim 17 (new): The use of claim 11 wherein the recombinant domain is the N-terminal extracellular domain.

Claim 18 (new): The use of claim 11 wherein the recombinant domain of the alpha subunit is the N-terminal extracellular domain comprising amino acids 1–210.

Claim 19 (new): The use of claim 11 wherein the recombinant domain of the beta subunit is the N-terminal extracellular domain comprising amino acids 1–222.

Claim 20 (new): The use of claim 11 wherein the recombinant domain of the gamma subunit is the N-terminal extracellular domain comprising amino acids 1–218.

Claim 21 (new): The use of claim 11 wherein the recombinant domain of the delta subunit is the N-terminal extracellular domain comprising amino acids 1–224.

Claim 22 (new): The use of claim 11 wherein the recombinant domain of the epsilon subunit is the N-terminal extracellular domain comprising amino acids 1–219.

Claim 23 (new): The use of claim 11 wherein the recombinant domains are expressed in a eukaryotic expression system.

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Claim 24 (new): The use of claim 23 wherein the eukaryotic expression system is *Pichia pastoris* or SFV.

Claim 25 (new): The use of claim 11 wherein the recombinant domains are large sequences of more than approximately 70 amino acids long and, preferably, about 200 amino acids long.

Claim 26 (new): The use of claim 11 wherein the combination is achieved simultaneously or sequentially.

Claim 27 (new): The use of claim 11 wherein the method of immunoadsorption is for the removal of anti-AChR antibodies from myasthenia gravis (MG) patients.

Claim 28 (new): A carrier comprising a combination of recombinant domains of the primate muscle nicotinic AChR subunits alpha, beta, gamma, delta and epsilon.

Claim 29 (new): The carrier of claim 28 comprising a recombinant domain of the alpha subunit of the primate muscle nicotinic AChR in combination with a recombinant domain derived from any one of the beta, gamma, delta and epsilon subunits of the primate muscle nicotinic AChR.

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Claim 30 (new): The carrier of claim 28 wherein the recombinant domains are covalently immobilized to the carrier matrix.

Claim 31 (new): The carrier of claims 28 wherein the carrier has a mixture selected from agaroses, such as CNBr-Sepharose, celluloses, porous glass, silica, resins, synthetic matrixes including acrylamide derivatives, methacrylamide derivatives or polystyrene derivatives.

Claim 32 (new): The carrier of claim 28 wherein the carrier is in the form of beads, fibrous form, sheets or hollow fibers, with spacer arms or without.

Claim 33 (new): A method for making a carrier for use in a method of immunoadsorption of anti-AChR antibodies comprising:

- i) expressing a combination of recombinant domains of AChR subunits in a eukaryotic expression system;
- ii) incubating said purified domains with an insoluble carrier matrix.

Claim 34 (new): The method of claim 33 wherein the combination of domains is coexpressed.

Claim 35 (new): The method of claim 33 wherein the eukaryotic expression system is *Pichia pastoris* or SFV.

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Claim 36 (new): A method for *ex vivo* removal of anti-AChR antibodies from the blood of MG patients comprising incubating said blood with a carrier of claim 28.

Claim 37 (new): A recombinant domain of the beta subunit or gamma unit, or delta unit or epsilon unit of the primate muscle nicotinic AChR.

Claim 38 (new): The recombinant domain of claim 37 wherein said domain of the beta unit is the N-terminal extracellular domain comprising amino acids 1–222.

Claim 39 (new): The recombinant domain of claim 37 wherein said domain of the gamma unit is the N-terminal extracellular domain comprising amino acids 1–218.

Claim 40 (new): The recombinant domain of claim 37 wherein said domain of the delta unit is the N-terminal extracellular domain comprising amino acids 1–224.

Claim 41 (new): The recombinant domain of claim 37 wherein said domain of the epsilon unit is the N-terminal extracellular domain comprising amino acids 1–219.